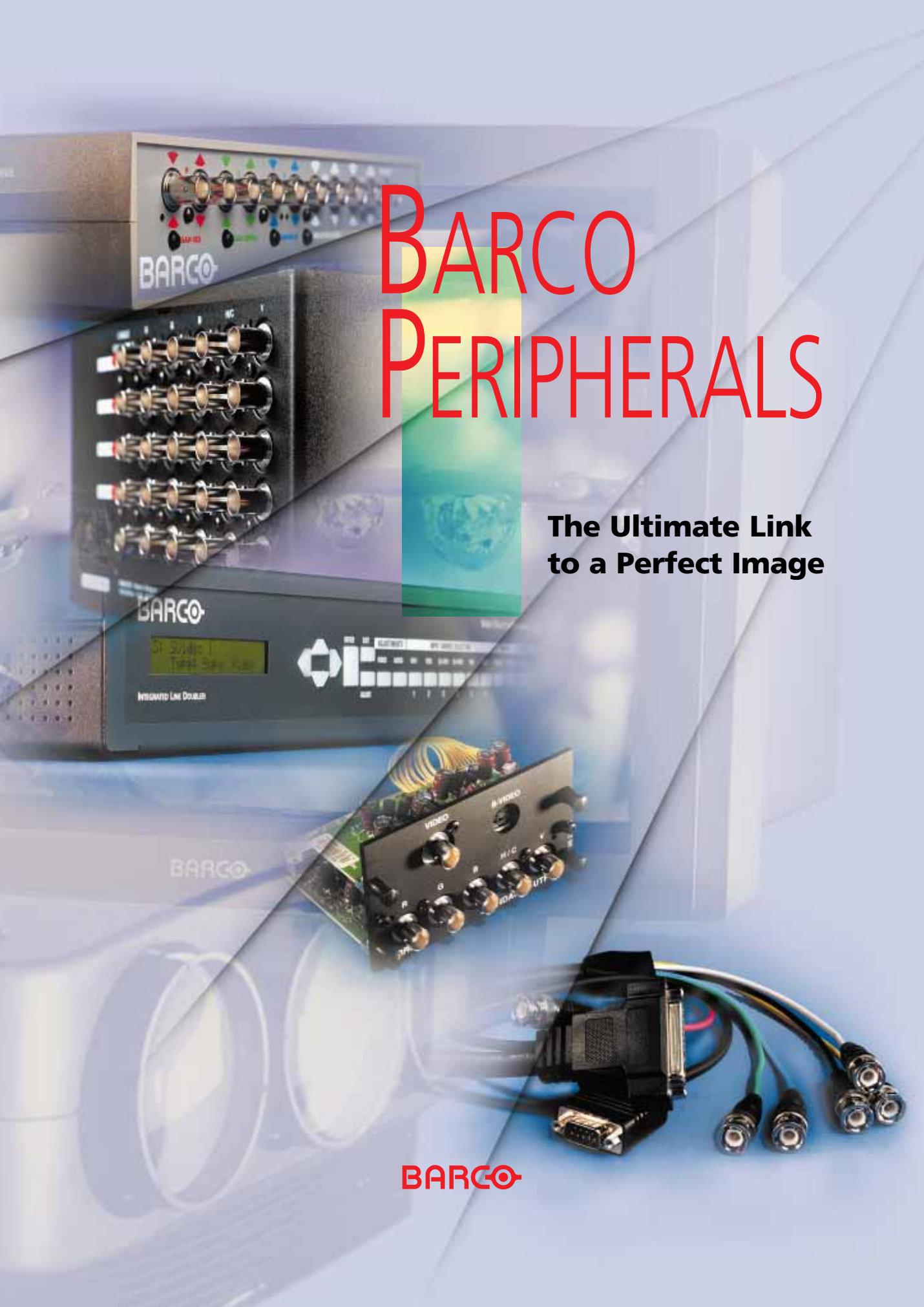


BARCO PERIPHERALS

The Ultimate Link to a Perfect Image

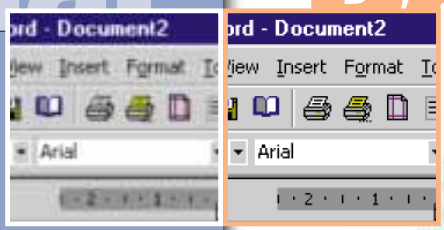
BARCO

conventional

BARCO

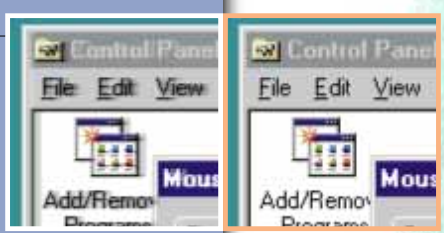
Blur

Is often due to a lack of sufficient bandwidth in peripheral equipment. BARCO's range of high quality peripheral equipment offers very high signal bandwidth to eliminate this problem.



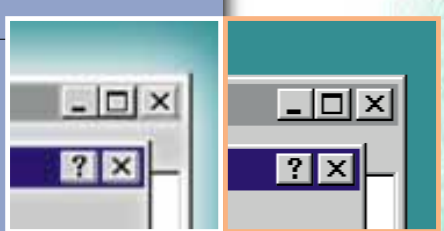
Ringing

Causes the image to appear smeared at the edges and is usually the result of bad signal transmission. BARCO's peripheral equipment incorporates superior signal processing circuitry to minimize ringing artifacts.



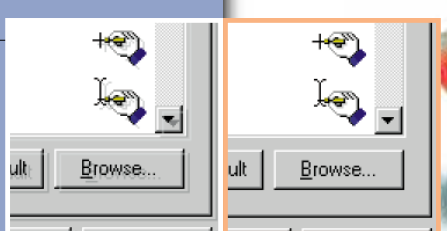
Peaking

Most interfaces use simple peaking circuits to compensate for high frequency losses on long cable runs. These conventional interfaces can introduce excessive peaking that can degrade image quality. BARCO uses only precision cable equalizing circuits, which are adjustable for the exact amount of equalizing needed.



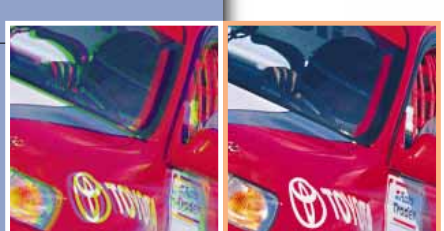
Reflections

Low quality cables, passive relays and inadequate circuit design can introduce signal reflections due to poor termination of high frequency signal paths and/or improper impedance matching within the signal chain. BARCO's peripheral products utilize high frequency active circuits with precision terminations. Together with BARCO's range of high quality cables, they help system designers avoid problems with signal reflections.



Luminance Delay

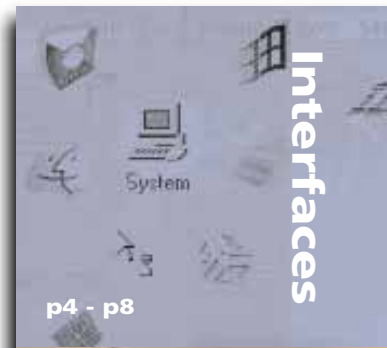
A common problem with interfaces when a signal is converted from video to RGB. BARCO's peripherals guarantee precise timing of both the chrominance and luminance channels.



The Ultimate Link to a **Perfect Image**

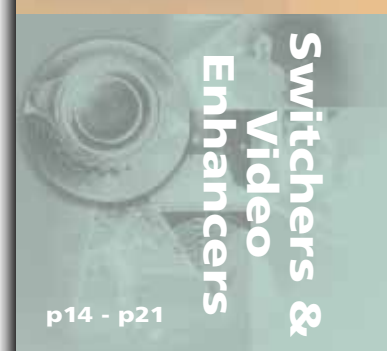
Large screen projection systems must be capable of faithfully reproducing an image that is 10 or even 100 times larger than the size of the original image. Flaws in a computer image that go unnoticed on a small desktop monitor will standout as embarrassing imperfections when projected on a large screen in front of your audience. However, more than a good projection system is needed to produce an impeccable image. The quality of the peripheral equipment required to link, enhance and distribute the signal sources is just as essential.

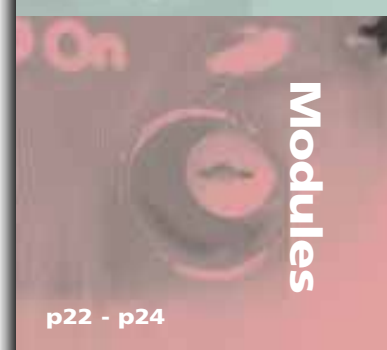
BARCO applies the same high quality standards in the design and production of its peripheral products as it does for its well known range of large screen projection systems. BARCO's range of computer interfaces, signal splitters, switchers, cables and adapters are designed to work in unison with large screen projectors to achieve optimal picture quality and stability. Through meticulous signal path design, BARCO peripheral products help avoid the typical pitfalls of harsh "real world" conditions that can degrade image quality.



Interfaces p4 - p8

Splitters p10 - p12


Switchers & Video Enhancers p14 - p21


Modules p22 - p24

Cables & Adapters p26 - p27

MAGIK INTERFACE

A typical computer output is designed for signals to be transported over relatively short cable lengths (3 ft./1 m). Systems designers often must deal with the connection of longer cables, of 100 ft./30 m or more. For these applications a high quality computer interface is a necessity. The interface must buffer the RGB signals, and process the sync for optimum image quality. In addition, the interface must offer very high signal bandwidth to ensure such quality for present and future sources.

BARCO's MAGIK INTERFACE is a high bandwidth, Plug & Play interface, which allows the user to connect virtually all desktop and portable computers to a presentation device such as a projector or a monitor, with or without maintaining the connection with the computer's own display. The MAGIK INTERFACE buffers and amplifies any RGB analog signal with TTL or analog sync with an absolute minimal of signal loss or image degradation.

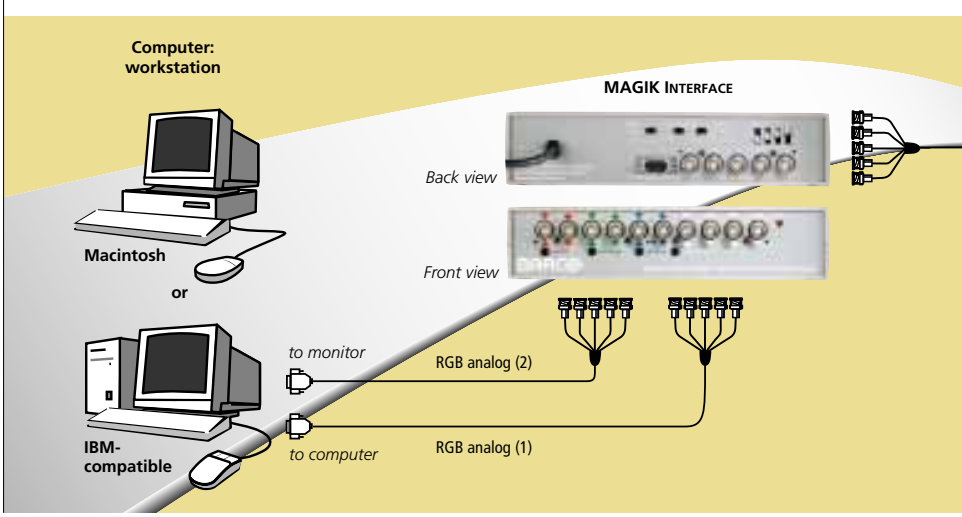
High Bandwidth, High Picture Quality

- Compatible with most graphics cards with a resolution up to 2500 by 2000 pixels
- RGB bandwidth of 265 MHz [-3 dB] for both projector and monitor output
- Active loop-through amplifiers eliminate reflections due to long or low quality monitor cables
- An adjustable cable equalizer compensates for high frequency cable losses
- The signal output level is adjustable for each color

Plug & Play Interface

Several of the adjustments of the interface are aligned automatically, which avoids confusion and misalignment by non-skilled users

- Automatic detection of the sync polarity, composite sync, sync on green, or separate sync
- Automatic 75 Ω termination
- Built-in power supply
- Mounting holes on the cabinet facilitate wall mounting of the interface



Interfaces

Technical SPECIFICATIONS

Inputs
- RGB: 0.4 - 2.5 Vpp adjustment gain for 0.7 Vpp output @ 75 Ω load with notch for unity gain
- Composite or separate sync: TTL level (buffered loop-through) @ 20 kΩ load or analog (direct loop-through) 0.3 to 5 Vpp
- The D9 female connector provides the ID-bits for the recognition of the graphical mode (When no monitor is connected, the mode can be set through ID bits on the interface)

Outputs
- RGB Analog 0.4 - 2.5 Vpp @ 75Ω Adjustable gain for 0.7 Vpp output @ 75Ω with notch for unity gain
- Output sync selection between composite or separate sync

Adjustments
- Sync tracking: OFF or Auto-tracking (H sync = 1/13 of line time; V sync = 3 to 4 lines)
- Input synch selection: TTL (buffered loop-through) or analog (direct loop-through)
- Output sync selection: composite or separate sync
- Cable loss compensation

Bandwidth
- Typical 265 MHz @ 0.7 Vpp in /0.7 Vpp out [-3 dB]
- Typical Rise/Fall time: 1.4 ns

Safety Regulations
The MAGIK INTERFACE complies with UL 1950 and EN60950

Electromagnetic Interference
The MAGIK INTERFACE complies with FCC part 15 Class B

AC Power
Built-in power supply for operation on 230 VAC or 120 VAC

Power Consumption
12 Watts

Weight	lbs.	kg
Shipping	12.35	5.6
Case	5.73	2.6
MAGIK	3.09	1.4
Cables	3.75	1.7

Dimensions		inch	mm
Case			
	Width	18.11	460
	Depth	14.17	360
	Height	6.30	160
MAGIK			
	Width	9.69	246
	Depth	4.69	119
	Height	2.24	57

Shipping Dimensions		inch	mm
Case			
	Width	18.90	480
	Depth	14.96	380
	Height	7.09	180
MAGIK			
	Width	12.80	325
	Depth	10.00	255
	Height	5.50	140

Order Information
Complete MAGIK INTERFACE KIT with case:

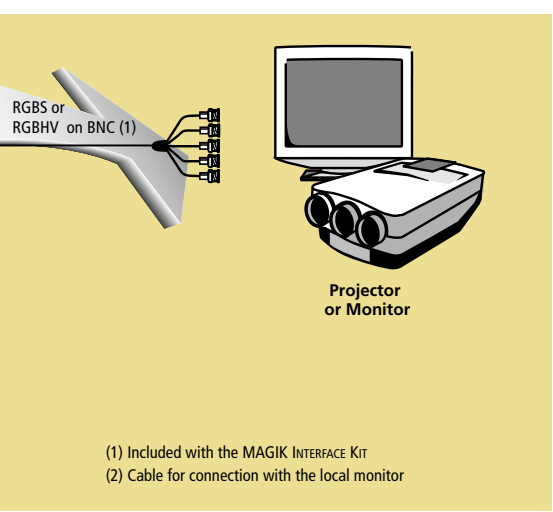
230 V	R9828120
120 V	R9828129

MAGIK INTERFACE:

230 V	R9828121
120 V	R9828128

Separate Cables:

Cable Input/Output 13W3	R9828230
Cable Input/Output Mac	R9828240
Cable Input/Output VGA	R9828250
Cable 5 x BNC/BNC:	
• 2 ft./0.6 m	R9828260
• 5 ft./1.5 m	R9828261
• 15 ft./5 m	R9828262
• 50 ft./15 m	R9828263
13W3 adapter set for IBM Power PC	R9828430



(1) Included with the MAGIK INTERFACE KIT
(2) Cable for connection with the local monitor

The MAGIK INTERFACE is available as a complete kit packaged in a rugged carrying case. It includes all the necessary cables for the connection of virtually any computer; including PCs, Macintosh, Sun, HP, DEC, IBM, Silicon Graphics and most other workstations.

Included Cables	ft.	m	communication
D15(f) to 6 x BNC + D9(m)	2	0.6	from Mac
6 x BNC + D9(f) to D15	1	0.3	to monitor
HD15 to 5 x BNC + D9(f)	2	0.6	from PC
5 x BNC + D9(f) to HD15	1	0.3	to monitor
13W3(f) to 6 x BNC + D9(m)	2	0.6	from workstation
6 x BNC + D9(f) to 13W3	1	0.3	to monitor
5 x BNC to 5 x BNC	2	0.6	from workstation
5 x BNC to 5 x BNC	16	5.0	to projector
13W3(f) to HD15(m)			Adapter for PowerPC

UNIVERSAL MAC INTERFACE

BARCO's UNIVERSAL MAC INTERFACE is an easy-to-use interface which allows the user to connect a Macintosh desktop or portable computer to a presentation device such as a projector or a monitor, while maintaining the connection with its own display. UNIVERSAL MAC INTERFACE buffers and amplifies the RGB analog signal without inducing any signal loss or image degradation.

Wide Compatibility
- All Macintosh computers including LC II Series, Centris, Quadra, Powerbook, Performa and PowerMacs

High Bandwidth, High Picture Quality
- Compatible with all Radius, SuperMac and RasterOps graphics cards
- RGB bandwidth of 200 MHz
- The signal output level is adjustable for each color

Plug and Play Interface

Several of the adjustments of the interface are aligned automatically, avoiding confusion and misalignment by non-skilled users
- Automatic adaptation to all Macintosh computers: LC II Series, Centris, Quadra, Powerbook, Performa and PowerMacs
- Automatic detection of the sync polarity, composite sync, sync on green, or separate sync
- Built-in power supply
- Mounting holes on the cabinet facilitate wall mounting of the interface

Technical SPECIFICATIONS

Inputs
- RGB Analog on D15 connector
- RGB: 0.41-1.4 Vpp adjustment gain for 0.7 Vpp output @ 75 Ω load
- Composite or separate sync: TTL @ 20 kΩ load
- A 2 ft./0.6 m shielded cable with D15 connectors is included

Output to Projector or Monitor
- Buffered output to projector
- RGBS or RGBHV on BNC connectors: 0.6 - 1.3 Vpp, external gain adjustment with notch for unity gain
- Switchable between composite or separate sync: 1.5 Vpp negative
- Switch for selection of monochrome (black & white) or color projection mode

Output to Local Monitor
- RGB analog on D15 connector
- 75 Ω terminator plug on D15 connector included (allows to use the MAC INTERFACE without a local monitor,three switches force the MAC into any display mode)

Bandwidth
200 MHz @ 0.7 Vpp in/0.7 Vpp out [-3 dB]

Safety Regulations
The UNIVERSAL MAC INTERFACE complies with UL 1950 and EN60950

Electromagnetic Interference
The UNIVERSAL MAC INTERFACE complies with FCC part 15 Class B

Power Consumption
10 Watts

Weight	lbs.	kg
Net weight	2.65	1.2
Shipping weight	3.53	1.6

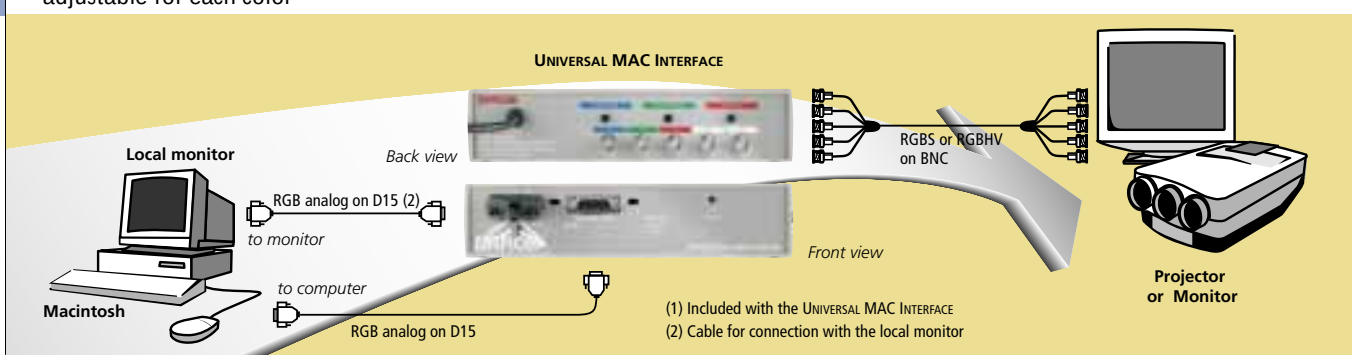
Dimensions	inch	mm
Width	9.69	246
Depth	4.69	119
Height	2.24	57

Shipping Dimensions	inch	mm
Width	12.80	325
Depth	10.00	255
Height	5.50	140

Order Information

UNIVERSAL MAC INTERFACE:

230 V	R9828050
120 V	R9828059



UNIVERSAL VGA INTERFACE

BARCO's UNIVERSAL VGA INTERFACE is a user-friendly interface that allows the user to connect virtually any personal computer with a VGA, SVGA, XGA, SXGA or UXGA graphics board card to a presentation device such as a projector or a computer monitor.

Wide Compatibility

- Compatible with VGA (640x480), SVGA (800x600), XGA (1024x768), SXGA (1280x1024) and UXGA (1600x1200), as well as most Macintosh computers with RGB and separate sync (no composite sync signals) with additional interface cable

High Picture Quality:

- The UNIVERSAL VGA INTERFACE makes it possible to connect all current graphics cards with a resolution of up to 1600 by 1200 pixels to a projector or monitor
- A bandwidth of 200MHz

Plug and Play Interface

Several of the adjustments of the interface are aligned automatically, avoiding confusion and misalignment by non-skilled users

- Automatic detection of sync polarity, separate sync or sync on green
- Automatic 75 Ω termination
- Built-in power supply
- Holes on the bottom facilitate wall mounting of the interface

Technical SPECIFICATIONS

Inputs

- RGB analog on HD15 connector
- Signal levels:
  -RGB: 0.4 - 2.5 Vpp adjustment gain for 0.7 Vpp output @ 75 Ω load
  - Separate sync: TTL @ 20 K load
- A 2 ft./0.6 m shielded cable with HD15 connectors is included
- Automatic detection of sync polarity, separate sync or sync on green

Output to Projector or Monitor

- Buffered output to projector
- RGBS or RGBHV on BNC Connectors: 0.2 - 1.1 Vpp, external gain adjustment with notch for unity gain
- Switchable between composite or separate sync: 1.5 Vpp negative @ 75 Ω load
- Slide switches forces the PC graphics card in a particular display mode if no local monitor is connected, otherwise the monitor ID codes are used

Output to Local Monitor

- RGB analog on HD15 connector
- Signal levels:
  -RGB: 0.4-2 Vpp (gain is internally set to 1)
  - Separate sync: TTL

Bandwidth

200 MHz @ 0.7 Vpp in/0.7 Vpp out [-3 dB]

Safety Regulations

The UNIVERSAL VGA INTERFACE complies with UL 1950 and EN60950

Electromagnetic Interference

The UNIVERSAL VGA INTERFACE complies with FCC part 15 Class B

Power Consumption

10 Watts

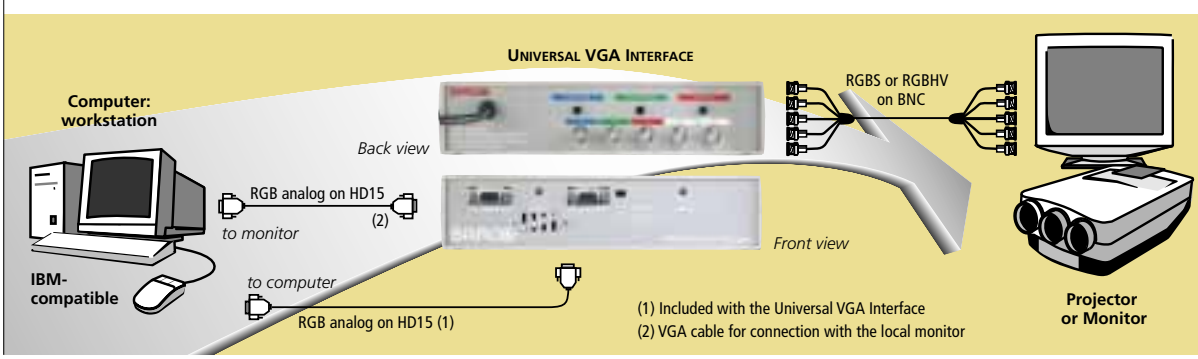
Weight	lbs.	kg
Net weight	2.65	1.2
Shipping weight	3.53	1.6

Dimensions	inch	mm
Width	9.69	246
Depth	4.69	119
Height	2.24	57

Shipping Dimensions	inch	mm
Width	12.80	325
Depth	10.00	255
Height	5.50	140

Order Information

UNIVERSAL VGA INTERFACE	
230 V	R9828070
120 V	R9828079



HDTV/Tri-level Sync Interface

BARCO's HDTV/Tri-level Sync Interface offers dual functionality: conversion of component signals (Y, R-Y, B-Y) into RGB, without any signal loss or image degradation and conversion of tri-level sync signals (typically from HDTV sources) into conventional bi-level sync.

Features
- Possibility to convert an HDTV signal into an RGBS signal
- Full compatibility with most advanced, improved, or extended HDTV-signals
- Input signal (on 4 BNC connectors, 75 Ω internal termination) can be in RGB or PrYPb (Y, R-Y, B-Y) format
- Sync input can be tri-level or standard sync
- Separate sync or sync on green or Y is possible
- Built-in power supply
- Light weight, ruggedized design
- Bandwidth: 20 MHz [-3 dB]

Technical Specifications

Inputs
- Input signal (on 4 BNC connectors, 75Ω internal termination) can be RGB or YPrPb (Y, R-Y, B-Y) format
- Horizontal frequency of the input signal can be 15.6 kHz or between 31 and 34 kHz
- Standard sync or tri-level sync (externally switchable)
- Separate sync or sync on G/Y (externally switchable)
- Signal levels:
  - R(Pr), G(Y), B(Pb): 0.7 Vpp ±3 dB
  - S(Tri-level S): 1.0 Vpp ±3 dB

Outputs
- One RGBS output: 4 x BNC connectors, 75 Ω output impedance
- Signal levels:
  - RGB: 0.7 Vpp
  - Sync: 1.0 Vpp

AC Power
Built-in power supply for operation on 230 VAC or 120 VAC (50/60 Hz)

Power Consumption
5 Watts

Bandwidth
20 MHz @ 0.7 Vpp in/0.7 Vpp out [-3 dB]

Weight	lbs.	kg
Net weight	4.41	2.0
Shipping weight	5.07	2.3

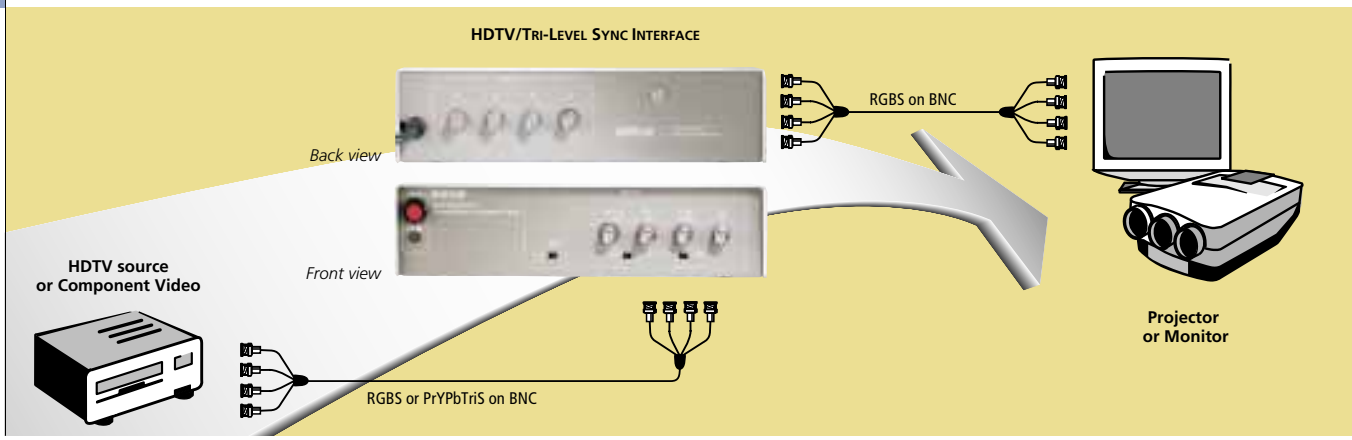
Dimensions	inch	mm
Width	8.84	250
Depth	5.51	140
Height	2.56	65

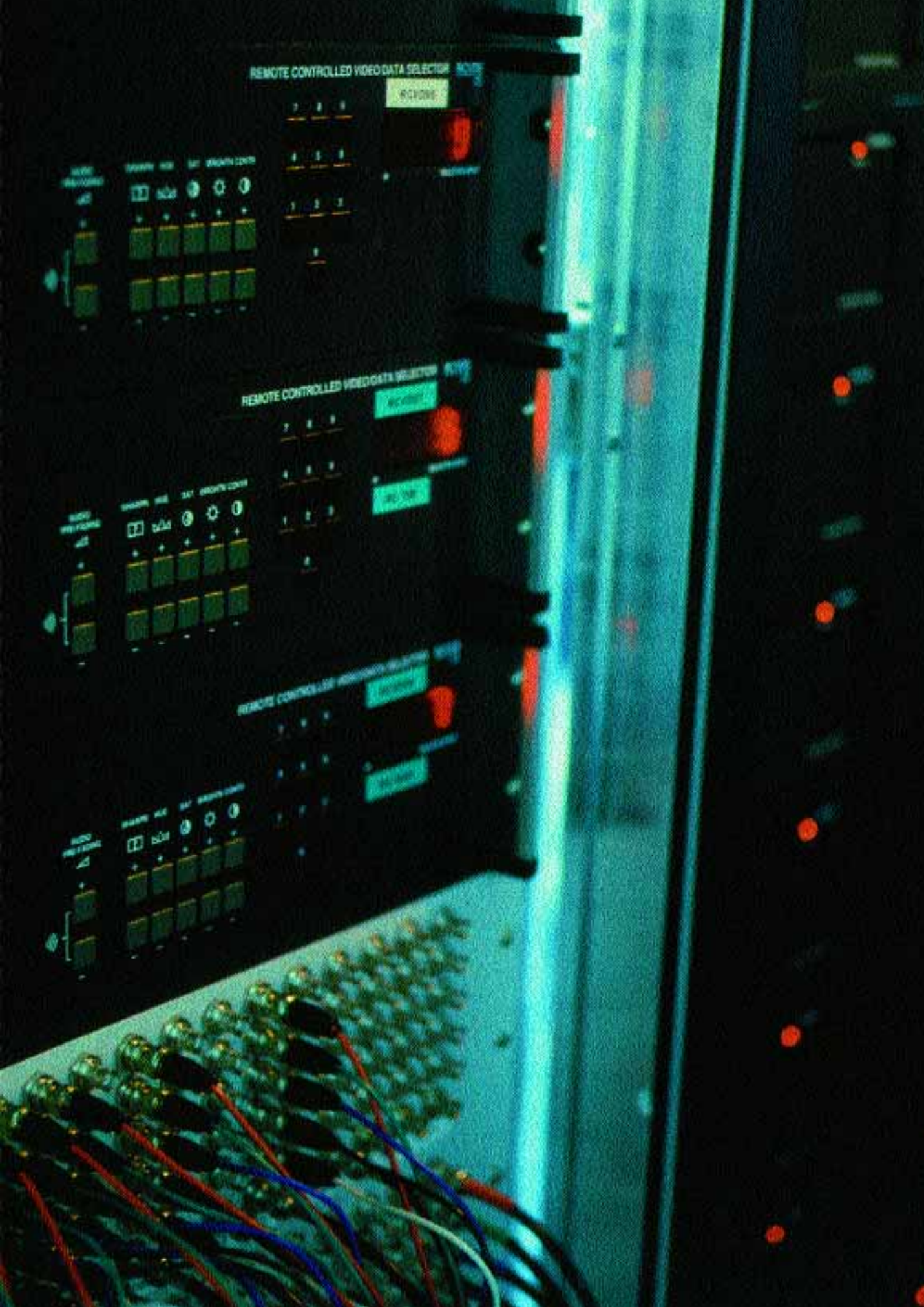
Shipping Dimensions	inch	mm
Width	12.80	325
Depth	10.00	255
Height	5.50	140

Order Information

HDTV/Tri-level Sync Interface:

230 V	R9827430
120 V	R9827439




REMOTE CONTROLLED VIDEO DATA SELECTOR
REMOTE CONTROLLED VIDEO DATA SELECTOR

QUAD SPLITTER 350

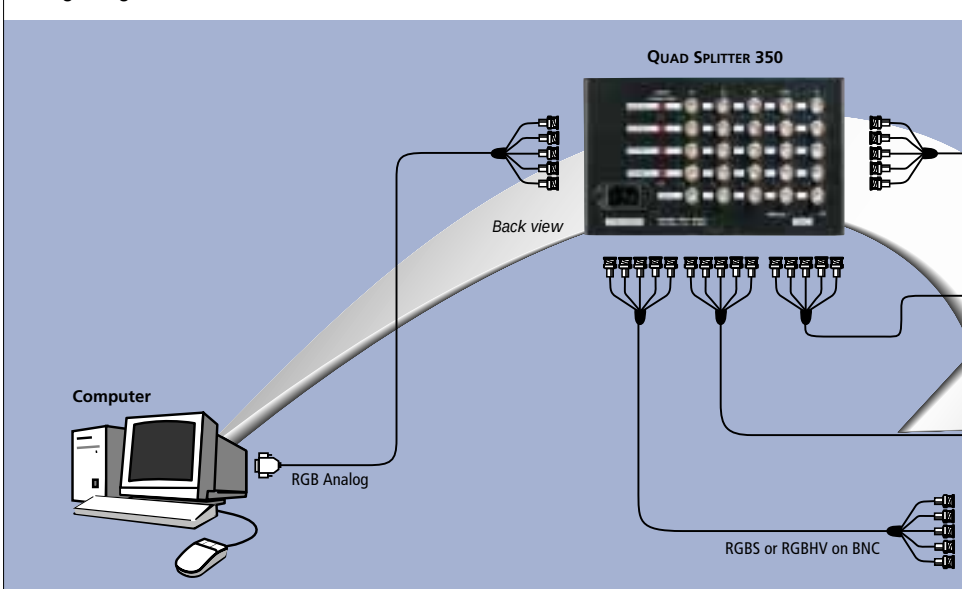
Splitters

A signal splitter (distribution amplifier) is a vital system component that allows proper distribution of an output signal which must be routed from one source to several destinations. A high performance splitter must have very high signal bandwidth and adjustable cable equalization for each output channel in order to compensate for high frequency losses when long cable runs are used.

BARCO's QUAD SPLITTER 350 is a high performance splitter that accommodates a wide range of input signals originating from computers, workstations, component video sources, decoders, cameras or other RGB sources. It allows signals to be distributed to multiple destinations (e.g. projectors or monitors) over long cable runs without inducing signal loss or image degradation.

Features

- Bandwidth: > 350 MHz
- Ability to distribute one RGB source or up to three video sources
- Four outputs are provided for each input
- Built-in cable equalizer, adjustable for each individual output,compensates the high frequency losses due to long cable runs
- Sync input is switchable between TTL and analog
- Built-in power supply (auto-ranging 100 - 240 VAC)
- Compact and ruggedized design
- 19" rack mountable



Technical SPECIFICATIONS

Inputs
- RGB analog or video (three BNC connectors), with 75 Ω internal termination
- Signal levels:
  - RGB: 0.7 Vpp ± 3 dB @ 75 Ω
  - Composite or separate sync: 0.3-4 Vpp ± 3 dB @ 75 Ω or TTL level @ 1 kΩ
- Composite or separate sync polarity: positive or negative
- Fully automatic sync input: sync on green, composite sync or separate sync
- Switch for analog/TTL sync (Hi-Z and 75 Ω)

Outputs
- Four RGBS or separate sync outputs on BNC connectors, 75 Ω output impedance
- Output sync polarity is the same as input sync polarity

Bandwidth
RGB channels: 350 MHz @ [-3 dB]
Sync channels: 10 MHz @ [-3 dB]

Cable Equalizer
Compensates for mid to high frequency RGB video bandwidth response in projectors, and corrects for signal degradation due to cable losses

Safety Regulations
The QUAD SPLITTER 350 complies with UL 1950 and EN60950

Electromagnetic Interference
The QUAD SPLITTER 350 complies with FCC part 15 Class B and CE EN55022 Class B

AC Power
Built-in power supply, auto-ranging from 100 to 240 V, 50-60 Hz

Power Consumption
max. 10 Watts

Weight	lbs.	kg
Net weight	3.42	1.5
Shipping weight	5.29	2.4

Dimensions	inch	mm
Width	8.27	210
Depth	5.12	130
Height	4.33	110

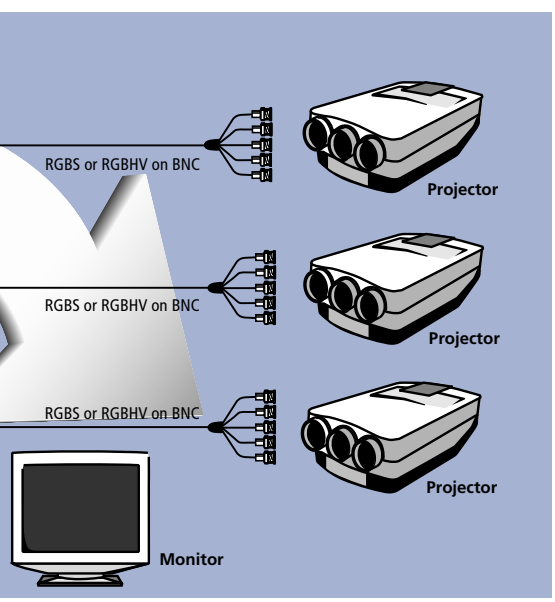
Shipping Dimensions	inch	mm
Width	12.80	325
Depth	10.00	255
Height	5.50	140

Rack Mounting
- A Rack Mount Kit (three units high) is available to mount up to two QUAD SPLITTER 350 units in a 19" rack width
- A blank fill panel is supplied in the kit for use when mounting only one QUAD SPLITTER 350

Flight Case
This flight case can accommodate two units and can be used to safely transport the QUAD SPLITTER 350

Order Information

QUAD SPLITTER 350	
230 V	R9828300
120 V	R9828309
19" Rack Mount Kit	R9828390
Flight Case	R9828400



A QUAD SPLITTER 350 and a QUAD SWITCHER 350 in a 19" Rack Mount

COMM800 SPLITTER

CONNECTS UP TO 4 PROJECTORS

BARCO'S COMM800 SPLITTER distributes the communication between one BARCO switcher and up to four BARCO projectors, enabling one switcher to control up to four projectors simultaneously.

Features

- Ability to distribute the communication signal of a BARCO switcher to up to four projectors
- Ideal for multiple (stacked) projector installations using only one BARCO switcher
- Selection of more inputs possible by using loop-through feature of BARCO switchers
- Compatible with all BARCO projectors equipped with an 800 series communication port
- Built-in power supply
- D9 connector for the connection of an additional IR remote receiver

Technical SPECIFICATIONS

Inputs

- 800 series communication from a BARCO VS 05, RCVDS 05 or QUAD SWITCHER 350 on D9 connector
- Remote IR control on D9 connector
- IR receiver (adress 5 or 9)

Outputs

Four communication output ports that link to the COMM800 port of the projector

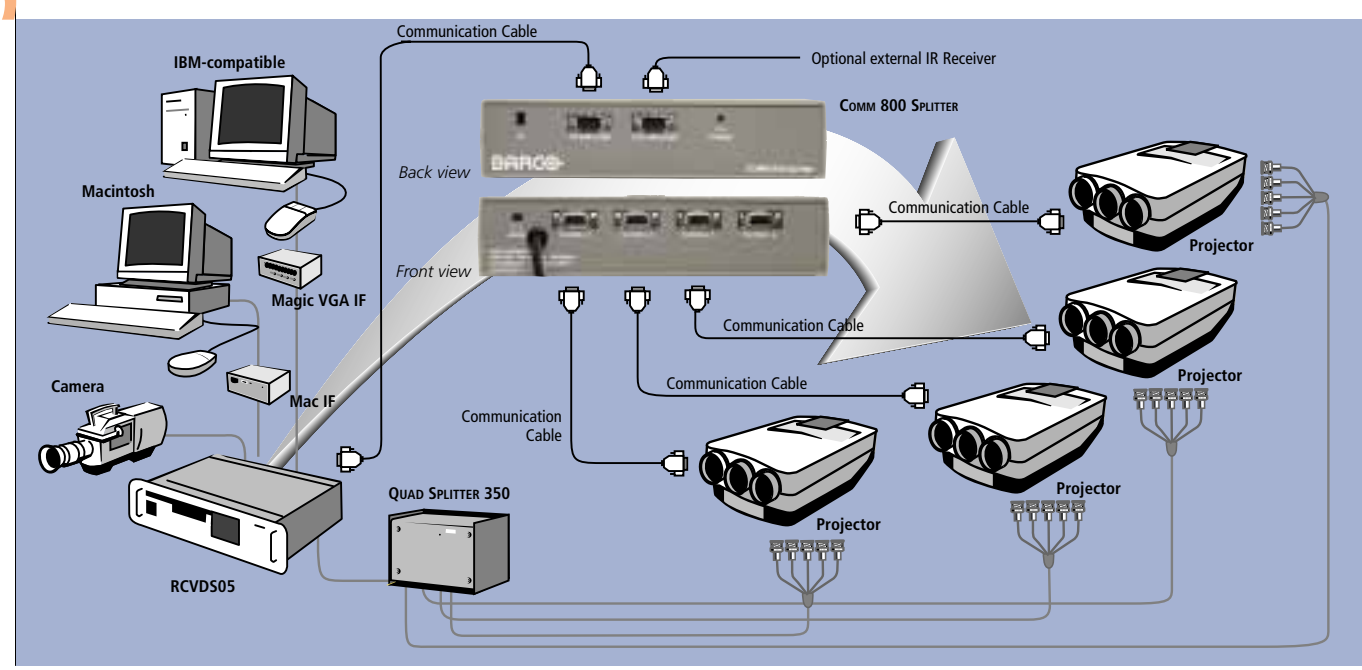
Weight	lbs.	kg
Net weight	2.56	1.2
Shipping weight	3.53	1.6

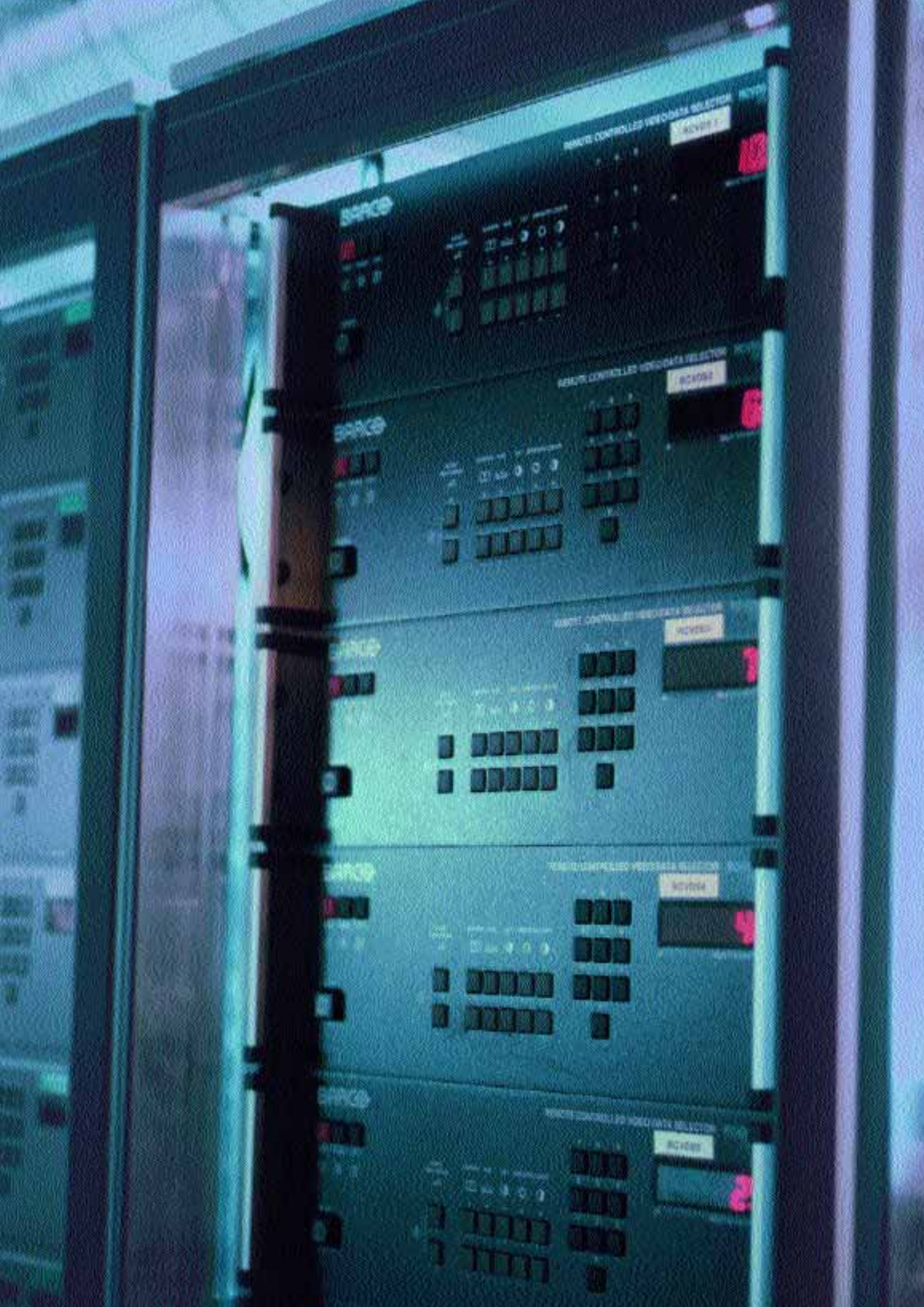
Dimensions	inch	mm
Width	9.69	246
Depth	4.69	119
Height	2.24	57

Shipping Dimensions	inch	mm
Width	12.80	325
Depth	10.00	255
Height	5.50	140

Order Information

COMM800 SPLITTER	
230 V	R9827940
120 V	R9827949





VS 05

Switchers & Video Enhancers

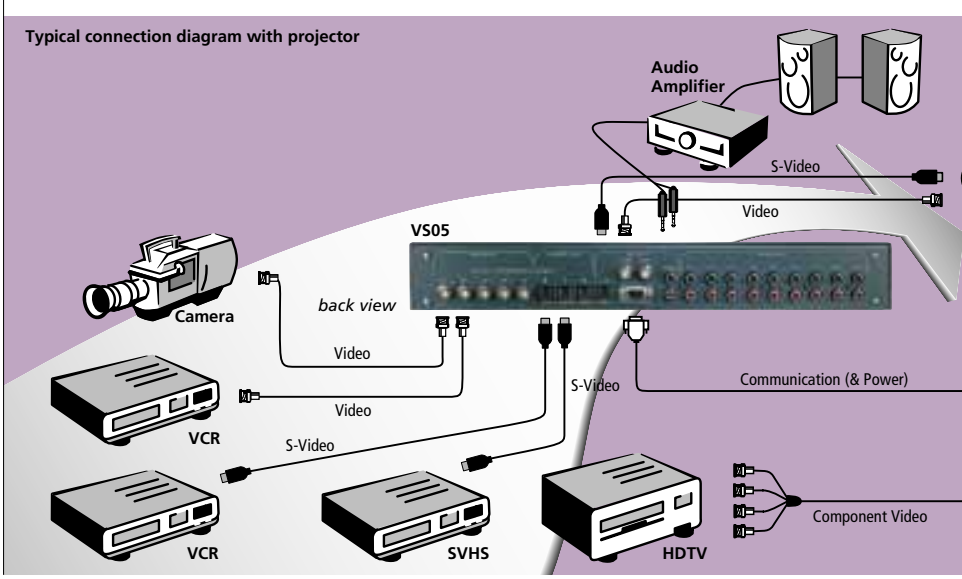
One of the most critical elements of a high performance audio-visual system is the signal switching system. A high performance switcher allows the system user to select a wide variety of signal sources as effortlessly as changing channels on a television set. In more complex systems, a switcher will allow multiple sources to be routed to multiple displays. Besides merely routing the source signals, it is vital that a switcher possesses extremely high quality signal handling in order to avoid introducing artifacts into the displayed image.

BARCO's VS 05 is a versatile, Video and HDTV source selector for all BARCO's digitally controlled large screen projectors. It offers the possibility to connect and switch up to five different Video sources, three different S-Video sources and one RGB Analog source to a BARCO projector, or other display product. In addition, audio-follows-video switching is provided for switching signals to an audio system.

Features

- Up to five different Composite Video sources, three different S-Video sources and one RGB Analog source
- Source switching and picture control can be done through the built-in soft keypad or through the projector's remote control unit
- LED display for source indication
- The RGB Analog or Component Video source must be directly connected to the projector and can be any frequency that the projector itself can accommodate
- Audio inputs on all sources
- Operation on 30 VDC power supply of a BARCO projector or stand-alone operation can be achieved by a user-supplied power supply (15-20V DC) to the VS 05 communication port
- As a stand-alone video source selector the VS 05 can operate with any monitor or projector
- Fits into any standard 2 units high 19" rack

Typical connection diagram with projector



VIDEO/HDTV SOURCE SELECTOR FOR BARCO PROJECTORS AND STAND-ALONE USE

Technical SPECIFICATIONS

Inputs
- One RGB Analog source must be directly connected to the projector as source 9 (can be RGB Analog, HDTV, Line Doubled Video, also Component Video if the projector has the appropriate input)
- Stereo audio on all sources (source1 to 9): 2 x RCA connectors
- Five Video sources (source 1 to 5): 1 x BNC connector
- Three S-Video sources (source 6 to 8): 1 x 4 pin mini-DIN connector
- External power supply input: operation on 30 V DC power supply of a BARCO projector, or by a user-supplied 15-20 V DC @ 200 mA through the D9 communication port

Outputs
- Output to projector:
  - Video: one BNC connector
  - S-Video: 1 x 4 pin mini-DIN connector
  - Communication output on D9 male connector to '800 peripherals' port of projector (also used for stand-alone power supply)
- Output to monitor: Video: 1 x BNC connector
- Output to audio amplifier: unbalanced stereo audio on 2 x RCA connector

Controls
- Standby: selects between the projector Standby Mode and Operational Mode
- Pause: blanks the projector image while the projector remains at full power for immediate restarting (the output to the monitor remains active)
- Text ON/OFF: for on-screen display of source and status information
- Source Selection: direct selection between all input sources by the numeric keypad
- Analog Picture Control: brightness, sharpness, contrast, tint, color saturation
- Input selection switches for RGB Analog source (source 9):
  - Component Video/RGB
  - RGsB/RGBS
  - Standard sync/Tri-level sync

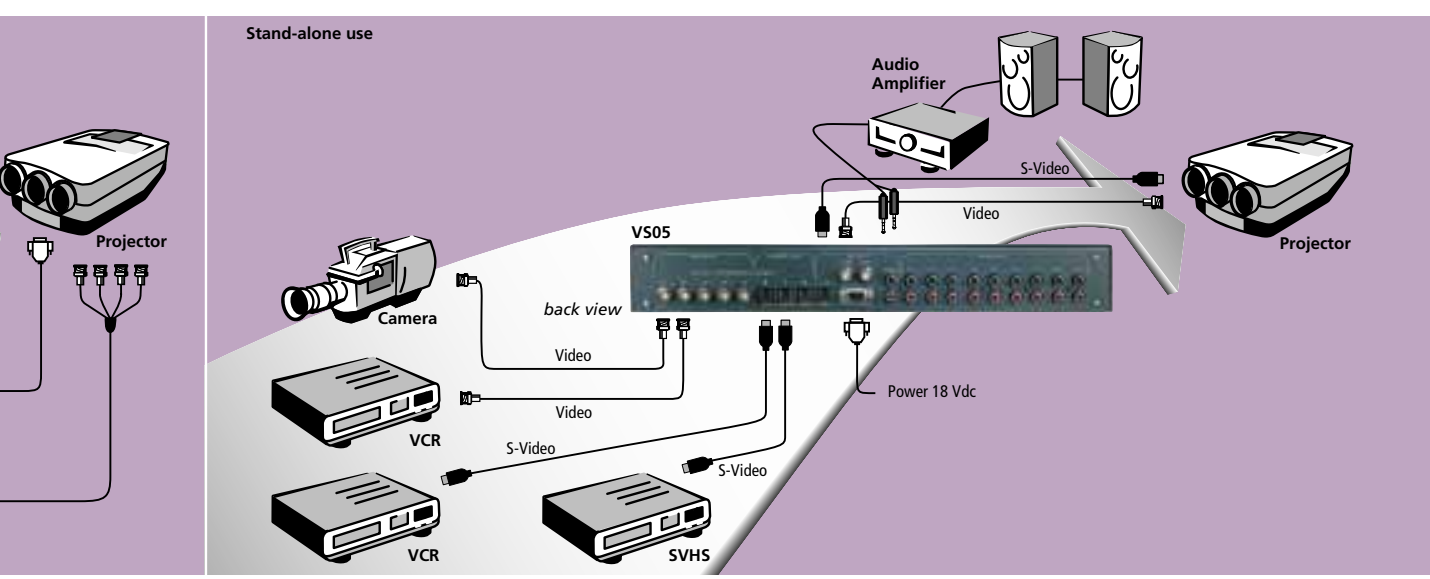
DC Power
15 - 20 V

Weight	lbs.	kg
Net weight	7.72	3.5
Shipping weight	9.92	4.5

Dimensions	inch	mm
Width	17	434
Depth	9.6	245
Height	2.5	63
Width front panel	19	483
Height front panel	3.5	88

Shipping Dimensions	inch	mm
Width	22.44	570
Depth	12.60	320
Height	7.87	200

Order Information
VS05	R9827890



VSE SERIES

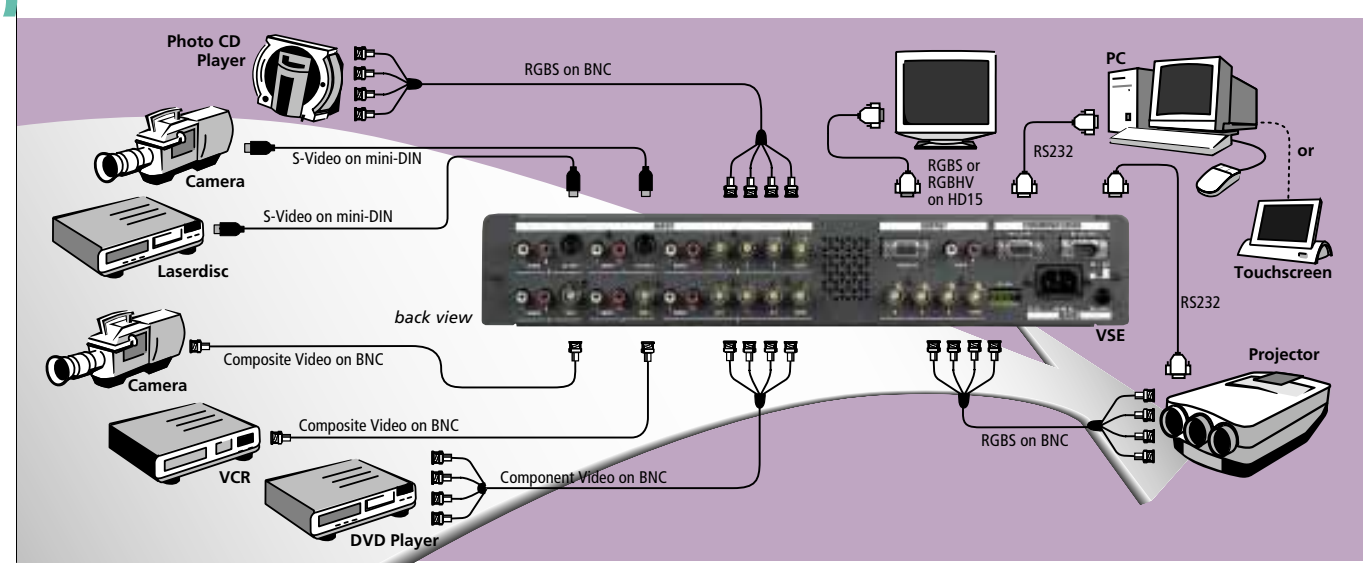
The VSE SERIES is BARCO's latest range of switchers that include added features for video enhancement. Depending on the application, three types of integrated video processing circuits are available which significantly improve the image quality and color transitions. BARCO's VSE SERIES switchers are ideally suited for any projection environment where video quality cannot be compromised including home theater, presentation and training, as well as broadcast applications.

VSE 10
INTEGRATED DECODER

The VSE 10 is a switcher with a built-in multi-standard video decoder. A sophisticated three-line adaptive comb filter decoder provides excellent color transitions and remarkable image sharpness. The VSE 10 can function as a fully stand-alone unit.

Features

- Built-in three-line adaptive comb filter decoder guarantees excellent chroma and luminance transitions and significantly reduces cross-color noise in the displayed image
- Built-in DVD/VCR video enhancement through BARCO's STEADYSYNC™
- Possibility to switch up to 6 inputs (Video, S-Video, Component Video and RGB)
- Video enhancing by adjustment of color saturation, tint and sharpness
- Audio adjustments:
  - Global: mute, volume
  - Per source: prefading, balance, trebble, bass
- Automatic 75 Ω termination
- Remote controllable by IR (extended RC5) or through RS-232
- 19" rack mountable design through optional two unit kit



VSE 10 + LiDO = VSE 20

INTEGRATED LINE DOUBLER

BARCO's LiDo circuit greatly reduces visible line structure inherent in video by doubling the number of lines and enhancing picture detail. The result is a smoother, flicker-free video image. It is standard on the VSE 20 and can also be integrated in BARCO projectors as well as in the RCVDS 05.

Features

- The LiDo video processing circuit doubles the number of lines of the video image through BARCO's Digital Smart Motion Detection Filtering which takes into account pixel information from the previous line, the following line and the previous image field
- The output frequency is 31.25 kHz/50 Hz or 31.5 kHz/60 Hz
- A specially designed Phase Locked Loop (PLL) circuit samples the incoming video signal and eliminates the influence of noise which results in an extremely stable image regardless of the quality of the video source
- BARCO's LiDo works in unison with a built-in multi-standard video decoder to provide superior video quality

VSE mounted in 19" rack

VSE 10 + LiMO = VSE 40

INTEGRATED LINE MULTIPLIER

BARCO's LiMo is a digital video line multiplier based on an advanced modular architecture. Its circuitry digitally reconstructs the video picture pixel-by-pixel and line-by-line and it transforms it into a high resolution image with stunning picture quality.

Features

- BARCO's LiMo processing circuitry converts conventional video line structures into high resolution images through advanced linear interpolation and progressive scanning techniques
- The resolution of standard interlaced video, 525 (NTSC) and 625 (PAL) lines are converted into:
  - 525/625 lines non-interlaced @ 50/60 Hz (median or interpolated)
  - 1050/1250 lines non-interlaced @ 50/60 Hz
  - 525/625 lines non-interlaced @ 100/120 Hz
  - 1050/1250 lines interlaced @ 100/120 Hz
- Full Frame Freeze (1050/1250 lines), motion picture detection and processing, contrast enhancement, digital noise reduction, adjustable luminance delay, BARCO's SteadySync™ technology and digital video equalizing/sharpness adjustment
- Compatible with all video sources ranging from standard television, VCR and DSS to LaserDisc and DVD players
- BARCO's LiMo works in unison with an advanced comb filter video decoder to provide superb video quality

with Multi-Standard Video Decoder

with Line Doubler

with Line Multiplier

VSE Series

Technical SPECIFICATIONS

Inputs
- Two Composite Video inputs on BNC connectors
- Two S-Video inputs on 4 pin mini-DIN connectors, (may be re-configured as Composite Video input)
- One Component Video input (R-Y, B-Y, Y, sync) on 4 x BNC connectors
- One RGBS or RGsB input on 4 x BNC connectors
- Stereo audio inputs for all signal inputs on six stereo audio RCA connectors

Outputs
- Two Simultaneous Image outputs of which one RGBS output on 4 x BNC connectors and one RGBS or RGBHV output on an HD15 connector
- One Stereo audio unbalanced output on 2 x RCA/Cinch connectors
- RS-232 Loop-Through communications port on D9 male & female connectors
- Phoenix connector (RS-485) for AX Link (AX Link Ready)

Front Panel
- IR Receiver
- Adjustment buttons
- Input source selection buttons
- Image buttons (same as adjustment buttons)
- Power/Standby button
- LCD display

Bandwidth
35MHz

Safety Regulations
UL 1950 and EN60950

AC Power
Built-in power supply, auto-ranging from 100 to 240 V AC (-15%, +10%), 50/60Hz

Power Consumption
38 Watts

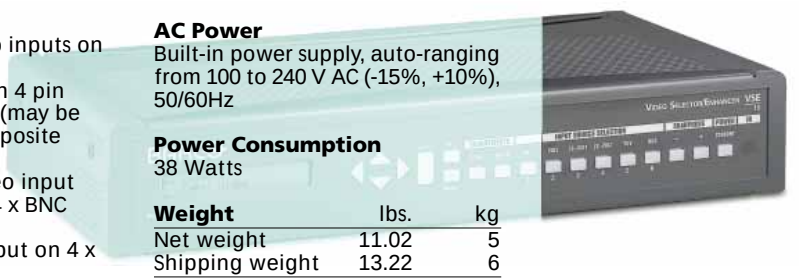
Weight	lbs.	kg
Net weight	11.02	5
Shipping weight	13.22	6

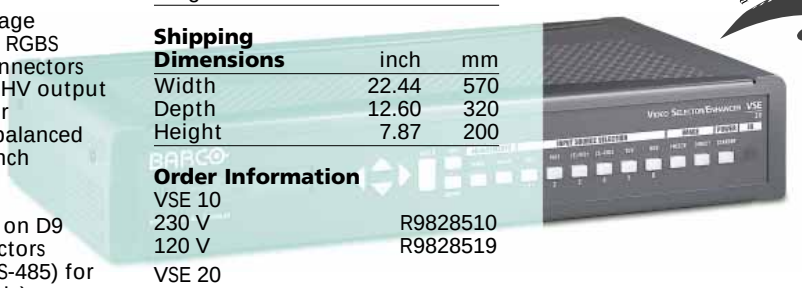
Dimensions	inch	mm
Width	17.12	435
Depth	9.05	230
Height	3.14	80

Shipping Dimensions	inch	mm
Width	22.44	570
Depth	12.60	320
Height	7.87	200

Order Information

VSE 10	
230 V	R9828510
120 V	R9828519
VSE 20	
230 V	R9828490
120 V	R9828499
VSE 40	
230 V	R9828520
120 V	R9828529





	VSE 10	VSE 20	VSE 40
Built-in decoder with comb filter	●	●	●
DVD/VCR tape enhancer (sync)	●	●	●
Time Base Correction (sync)	-	-	●
Sharpness adjustment (analog)	●	●	-
Video equalizing (digital sharpness)	-	-	●
Motion Picture processing	-	-	●
Line Doubling (all 15kHz sources)	-	●	●
Line Quadrupling (all 15kHz sources)	-	-	●
Frame Doubling (100/120Hz)	-	-	●

QUAD SWITCHER 350

BARCO'S QUAD SWITCHER 350 is a high bandwidth RGB switcher which allows up to four RGB input signals to be switched to one large screen projector or monitor.

Features

- Ability to connect up to four RGB Analog sources to one BARCO projector or any other RGB display device
- Built-in auto-ranging power supply
- Sync on green or separate sync identification for projector
- Switcher can be used with a BARCO projector via the COMM800 port, or as stand-alone unit
- LED indicates selected source
- Compact and ruggedized design
- 19" rack mountable
- When used with BARCO projector Video and S-Video inputs on projector are still available

Technical SPECIFICATIONS

Inputs

- Four RGB Analog inputs on BNC connectors: 1 Vpp ± 3 dB with 75 Ω internal termination
- Composite sync, sync on green or separate sync: 1-4 Vpp ± 3 dB
- Composite or separate sync polarity: positive or negative
- One switch per input for selection RGBS/RGsB

Outputs

- One RGBS or RGBHV output on BNC connectors, 75 Ω output impedance
- Output sync polarity is the same as input sync polarity
- Communication with projector (COMM800)
- Serial communication with other control devices (RS-232)
- Switch between COMM800 or RS-232

Bandwidth

>350 MHz @ [-3 dB]

Safety Regulations

The QUAD SWITCHER 350 complies with UL 1950 and EN60950

Electromagnetic Interference

The QUAD SWITCHER 350 complies with FCC part 15 Class B and CE EN55022 Class B

AC Power

Built-in power supply, auto-ranging from 100 to 240 V AC, 50-60 Hz

Power Consumption

3.5 Watts

Weight	lbs.	kg
Net weight	3.75	1.7
Shipping weight	4.85	2.2

Dimensions	inch	mm
Width	8.27	210
Depth	5.12	130
Height	4.33	110

Shipping Dimensions	inch	mm
Width	12.80	325
Depth	10.00	255
Height	5.50	140

Rack Mount Kit

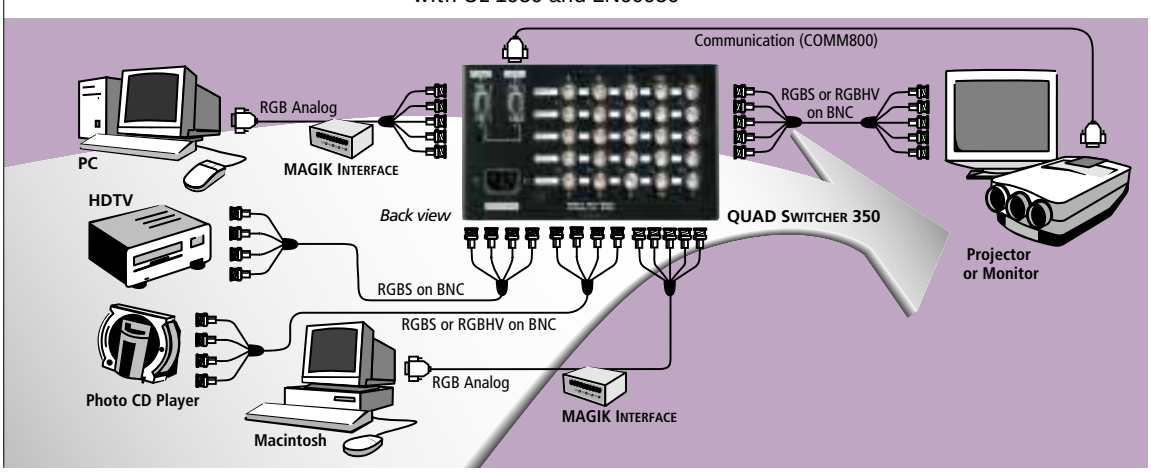
- to mount up to two QUAD SWITCHER 350 units in a 19" rack width (three units high)
- A blank fill panel for use when mounting only one QUAD SWITCHER 350 (the same rack mount panel as QUAD SPLITTER 350)

Flight Case

This flight case can accommodate two units and can be used to safely transport the QUAD SWITCHER 350

Order Information

QUAD SWITCHER 350	
230 V	R9828310
120 V	R9828319
19" Rack Mount Kit	R9828390
Flight Case	R9828400



RCVDS 05

The RCVDS 05 is a remote controlled high bandwidth source selector for the distribution and switching of a wide range of video, data and graphics sources to one or more projectors. The unit's modular input design accommodates up to ten input modules which can be added as system requirements change. A wide variety of input modules are available. An optional Expansion Input Module allows up to ten RCVDS 05 switchers to be daisy-chained in order to accept up to 90 inputs.

Features

- Picture adjustments and source selection through a BARCO projector or direct IR Remote Control
- Possibility to switch up to twenty different Video and S-Video sources, and ten different Component Video, RGB with Standard or Tri-Level Sync sources with one RCVDS 05 switcher
- Modular design accepts a variety of input modules types
- The Expansion Input Module allow multiple switchers to be daisy-chained to support up to 90 input modules
- Automatic 75 Ω termination
- Stand-alone use with remote control possible
- Compatible with all BARCO digitally controlled projectors. It may also be used in a stand-alone configuration with any projector or monitor

Technical SPECIFICATIONS

Inputs

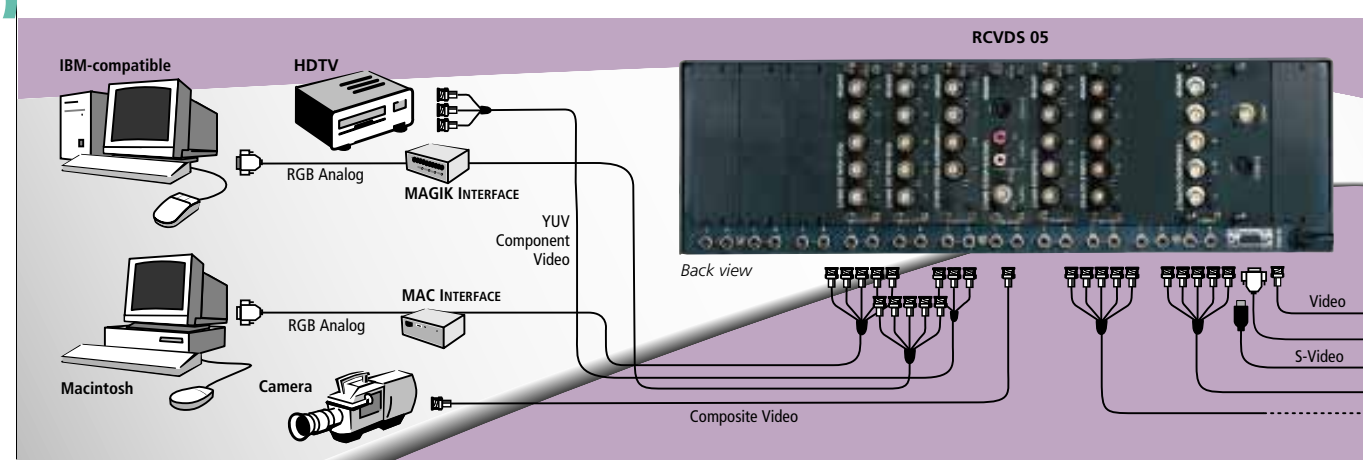
- Ten hardwired unbalanced stereo audio inputs on RCA connectors
- Up to ten modular inputs can be installed (see next page)

Outputs

- Video output on BNC connector
- S-Video output on 4 pin mini-DIN connector
- RGBS or RGBHV Analog output on five BNC connectors
- Unbalanced Stereo audio output on RCA connectors
- Hardwired communications port (to projector) on D9 connector
- Additional output modules can be added for more outputs

Operator Controls

All functions can be controlled through the front panel or the Infrared Remote Control of the projector



HIGH-BANDWIDTH, DIGITALLY CONTROLLED SOURCE SWITCHER

- Analog picture controls of brightness, contrast, tint, saturation, and sharpness
- Source selection
- Stand-by: selects projector Stand-by mode or operational mode
- Text : ON/OFF for on-screen display of status and source information
- Pause: blanks the projector image while the projector remains at full power for immediate restarting
- Pre-fading: (trim adjustment) of audio levels for each input

Additional Features
- 7-segment LED display indicates the selected source and displays diagnostic codes
- Audible beep tone indicates if a button on the front panel is pressed (can be deactivated)
- Up to ten RCVDS 05 switchers can be daisy-chained so that up to 90 sources can be switched simultaneously
- Up to four output modules can be installed in a RCVDS 05 switcher
- Up to sixteen RCVDS 05 switchers can be controlled via RS-232 from a central host computer

RGB Bandwidth
200 MHz [-3 dB]

Power Consumption
80 Watts

Weight	lbs.	kg
Net weight	17.64	8
Shipping weight	22.05	10

Dimensions	inch	mm
Width	19.00	483
Depth	12.40	311
Height	5.19	132

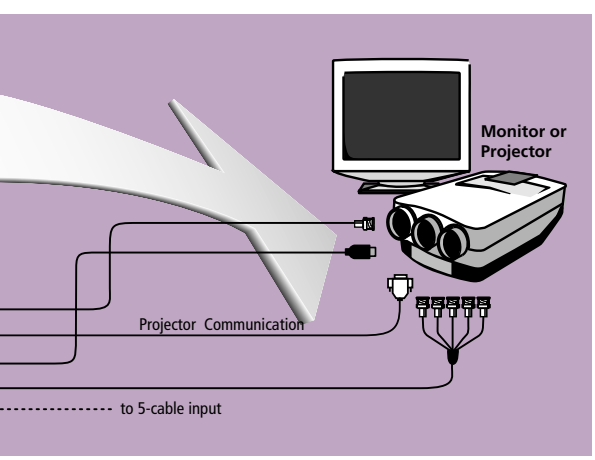
Shipping Dimensions	inch	mm
Width	21.65	550
Depth	14.57	370
Height	8.86	225

Options
- An optional Infrared Remote Receiver facilitates control from a different location
- A optional built-in Quad-standard Decoder converts Video, S-Video and Component Video to RGBS
- A built-in LiDo (Line Doubler) provides high quality Line Doubling of all Video, S-Video and component video sources
- With a special RGB LiDo input 15kHz RGB signals can also be doubled

Order Information

RCVDS 05:	
Standard unit (without modules)	
230 V	R9827880
120 V	R9827889
System Switcher[1]	
230 V	R9827881
120 V	R9827888
Decoder Kit	R9828035
LiDo Kit	R9828280

[1] The RCVDS System Switcher comes with 2 x Video and 3 x RGB Analog Input Modules and must be purchased with a projector at time of initial order.



The modular input facility of the RCVDS 05 makes it possible to adapt the unit to the end user's unique requirements.

RCVDS 05 Input Modules

A wide variety of input, output and special function modules are available for the RCVDS 05 switcher. These modules allow the system designer to configure the RCVDS 05 to precisely match the user's application requirements.

Modules

Video/S-Video Input

This Input module accepts two signal inputs: Composite Video on a BNC connector and S-Video on a 4 pin mini-DIN connector. Source signals applied to both inputs can be selected independently. An additional Stereo audio input is provided to support the S-Video signal input. The Composite Video input uses the fixed audio input on the RCVDS.

Component Video Input

This input module has four BNC connectors for connecting any Component Video source (YUV or Y, R-Y, B-Y) to the switcher. Sync may be present either on the Y channel or as separate composite sync.

RGB Analog Input

WITH STANDARD SYNC

This input module has five BNC connectors and accepts any RGB signal with bi-level sync. The sync signal may be on the green channel (RGsB), separate composite sync (RGBS) or separate horizontal and vertical sync (RGBHV).

RGB Analog Input

WITH TRI-LEVEL SYNC

This input module has five BNC connectors and accepts any RGB signal with tri-level sync. The sync signal may be on the green channel (RGsB), separate composite sync (RGBS) or separate horizontal and vertical sync (RGBHV).

RGB LiDo Input

This special function input module is designed to be used in a RCVDS 05 switcher that has a LiDo Line Doubler installed. Provided that a LiDo Kit is installed, this input module will allow any 15 kHz RGB video signal to be Line Doubled to 31 kHz. The input signal may have sync on green (RGsB) or separate composite sync (RGBS).

Communication Input

This special function module can be used to control the RCVDS 05 switcher when it is not connected to a projector, or in applications where two or more RCVDS 05 switchers are daisy-chained. This module allows for the standard BARCO COMM800 communication protocol, as well as RS-232. Using this module, the selectable IR address range is expanded ranging from 0 to 15.

Expansion Input

The Expansion Input must be used when two or more RCVDS 05 switchers are to be daisy-chained. In this configuration this module is always used together with the communication module to chain the communication signals also. This module accepts the sum of all inputs from sources connected to other RCVDS 05 switchers which are up-stream in the daisy-chain. This module accepts Composite Video, S-Video, Component Video and RGB Analog input signals through a five wire connection.

Order Information

Video/S-Video Input	R9827900
Component Video Input	R9827930
RGB Analog Input	R9827910
RGB Tri-Level Sync Input	R9827920
RGB LiDo Input	R9828410
Communication Input	R9828010
Expansion Input	R9828000

RCVDS 05 Output Modules

Standard Output:

A Standard Output module has five BNC connectors, one S-Video on a 4 pin mini-DIN connector and one Composite Video output on a BNC connector. Dependent on which input modules and optional special feature kits are installed, different output signals will be active.

• In a standard RCVDS 05 without any built-in options, the input and output signals are the same and use the same connector types

• When an optional Quad-standard Decoder Kit is installed in the RCVDS 05 switcher, Composite Video and S-Video sources are available as decoded RGB, and as Composite Video on the Video output and S-Video output connectors. Component Video sources will be available as decoded RGB output signals.

• With an optional LiDo (Line Doubler) Kit installed in the RCVDS 05 switcher, the output signals appear in the same way as with an optional Quad-Standard Decoder Kit. The Line Doubled Video (31.5 kHz) is output on the RGB BNC connectors. While the Composite Video or S-Video, of the original video signal (15 kHz) is output on the corresponding output connectors.

• All incoming video signals can be Line Doubled including Composite Video, S-Video and Component Video (with sync on Y)

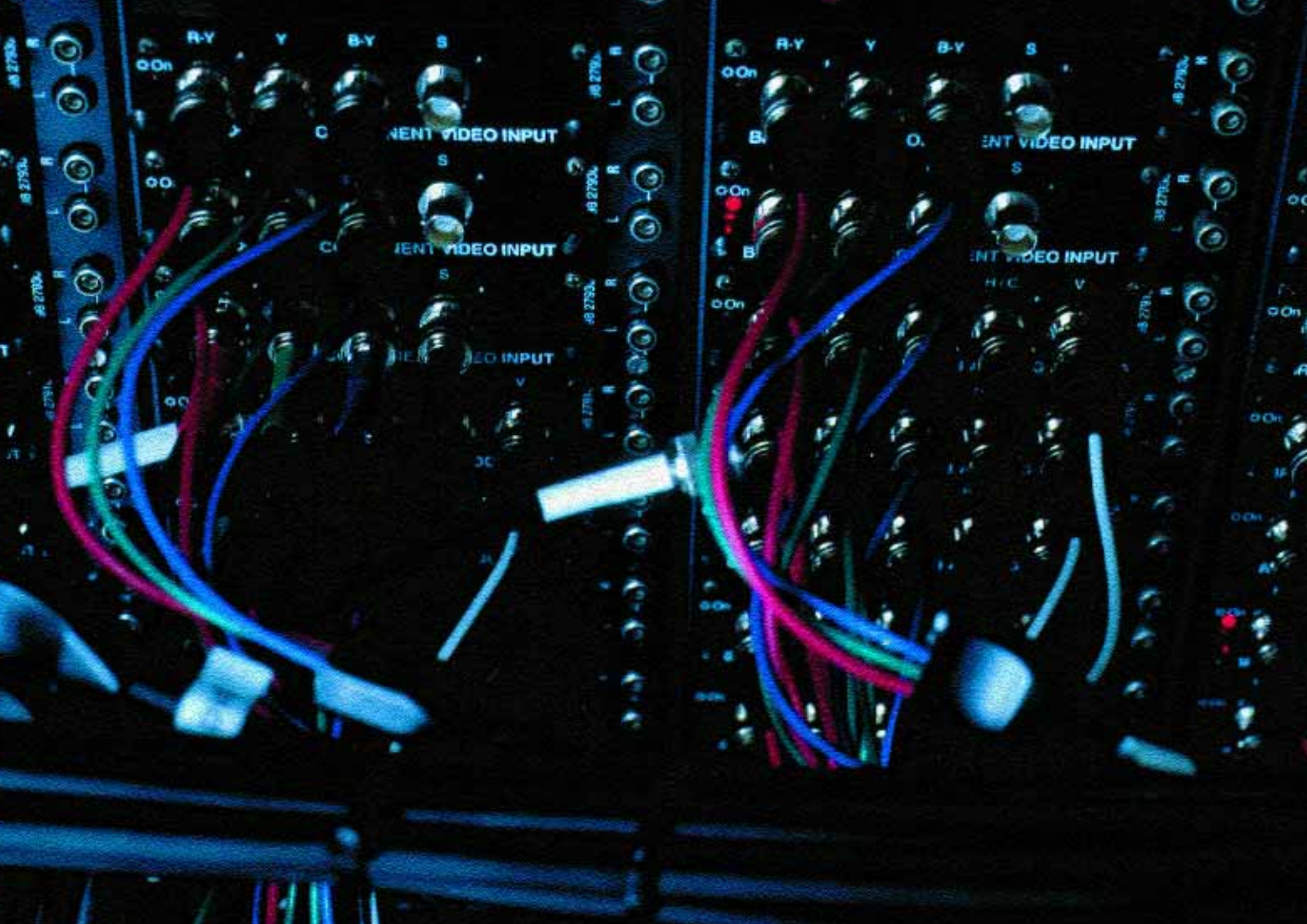
• In order to Line Double 15 kHz RGB analog signals, a special LiDo input module must be used.

5-Cable Output:

A 5-Cable Output module only has five BNC connectors over which all the output signals are distributed to the projector. Use of this module requires that the projector have a corresponding 5-Cable Input and a COMM800 communication connection to the switcher. The communications connection informs the projector which signal is being sent over which cable. The primary advantage of the 5-Cable Output module is that it allows the system designer to reduce costs on the cabling required between the RCVDS 05 switcher and the projector.

Order information

Standard Output	R9828020
5-Cable Output	R9827950


R-Y
Y
B-Y
S
On
VIDEO INPUT

Cables & Adapters

A key element in the design of any audio-visual or multimedia presentation system are the cables and adapters used to link source devices such as computers and workstations to output devices such as large projectors and monitors. The quality of these components is crucial in determining overall system performance.

For this reason, BARCO offers a complete assortment of high quality cables and adapters for the most diverse application requirements.

13W3 IN Cable

A 22"/55cm cable that goes from a 13W3 male connector to six BNC connectors with a D9 female communication connector. Allows connection with any device using an 13W3 female input connector.

E.g.: Connection between a SUN or Silicon Graphics workstation and a MAGIK INTERFACE

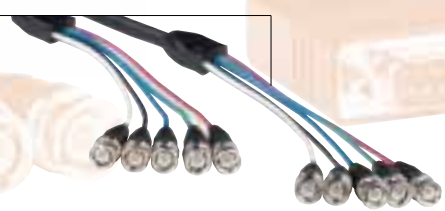
13W3 OUT Cable

A 12"/30cm cable that goes from a 13W3 female connector to six BNC connectors with a D9 male communication connector. Allows connection with any device using an 13W3 male female output connector.

E.g.: Connection between a MAGIK INTERFACE and a SUN or Silicon Graphics Monitor

5 BNC to 5 BNC Cable

Five high resolution, low loss mini-coaxial BNC to BNC cables are available in a variety of lengths, including 2 ft./0.6 m, 5 ft./ 1m50, 15 ft./5 m, and 50 ft./15 m



Mac IN Cable

A 22"/55 cm cable that goes from a D15 male connector to six BNC connectors with a D9 female communication connector. Allows connection with any device using a D15 female input connector.

E.g.: Connection between a Macintosh computer and a MAGIK INTERFACE

Mac OUT Cable

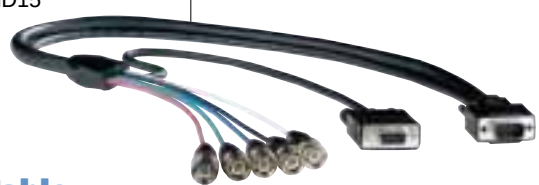
A 10" / 25 cm cable that goes from a D15 female connector to six BNC connectors with a D9 male communication connector. Allows connection with any device using a D15 male output connector.

E.g.: Connection between a MAGIK INTERFACE and a Mac Monitor.

VGA IN Cable

A 22”/55 cm cable that goes from an HD15 male VGA connector to five BNC connectors with a D9 female communication connector. Allows connection with any device using an HD15 female input connector.

E.g.: Connection between an IBM compatible PC and a MAGIK INTERFACE



VGA OUT Cable

A 10”/25 cm cable that goes from an HD15 female VGA connector to five BNC connectors with a D9 male communication connector. Allows connection with any device using an HD15 male output connector.

E.g.: Connection between a standard monitor with HD15 Sub plug and a MAGIK INTERFACE

D9 (m) to 5 BNC

This adapter makes it possible to connect any RGB source on BNC connectors to a display with a D9 input.

E.g.: Connection of any RGB source to the second RGB input of BARCO's CRT projectors

HD15 (m) to 5 BNC

This adapter makes it possible to connect any RGB source on BNC connectors to a display with a HD15 input.

Communication Cable

A D9 male to D9 female Straight-Through cable for connection of RS-232 or COMM800 communication ports.
Available in a variety of lengths: 15 ft./5 m, 50 ft./15 m and 100 ft./30 m
A heavy duty shielded 100 ft./30 m cable is available for special applications

13W3(f) to HD15(m)

This adapter makes it possible to go from an IBM Power PC monitor with a 13W3 female input connector to an HD15 male VGA connector

13W3(m) to HD15(f)

This adapter makes it possible to go from an IBM Power PC with a 13W3 male output connector to an HD15 female VGA connector

Order Information

13W3 IN/OUT Couple	R9828230
Mac IN/OUT Couple	R9828240
VGA IN/OUT Couple	R9828250
5 BNC to 5 BNC Cable :	
- 2 ft./ 0.6 m	R9828260
- 5 ft./ 1.5 m	R9828261
- 15 ft./ 5.0 m	R9828262
- 50 ft./15.0 m	R9828263
D9(m) to 5 BNC	R9827840
HD15(m) to 5 BNC	R9828800
Communication Cable:	
- 15 ft./ 5 m	R9827770
- 50 ft./ 15 m	R9827560
- 100 ft./ 30 m	R9827570
- 100 ft./ 30 m shielded	R9827870
Adapter set Power PC: 13W3(f) to HD15(m) 13W3(m) to HD15(f)	R9828430

Founded in 1934, BARCO is the acknowledged global leader in advanced large screen display products. BARCO has been a pioneer in the research and development of numerous display technologies. This experience now serves as the basis for the development of high-quality, state-of-the-art solutions for large projection systems used in the most diverse applications.

BARCO has created a dynamic team of design engineers who strive for continuous improvements in performance, quality and efficiency in order to create innovative projection system solutions. The creation of a complete range of peripheral products confirms BARCO's commitment to high quality large screen projection, by improving the signal paths towards the projector. BARCO is dedicated to its clients by offering ease of use and solution oriented products.

A specialized distribution network and subsidiaries in over 95 countries worldwide allows BARCO to respond quickly and efficiently to local customer requirements.

Through its dedication to excellence and commitment to total customer satisfaction, BARCO Projection Systems is your ideal partner to fulfill your most demanding requirements for your high- resolution, large screen projection system.

DESIGNED UNDER ISO 9001

BARCO Projection Systems is an ISO 9001 registered company.

The information and data given are typical for the equipment described. However any individual item is subject to change without any notice.

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